

PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY


(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

REC'D 23 JUN 2005

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| Applicant's or agent's file reference | | FOR FURTHER ACTION | | See Form PCT/IPEA/416 |
| International application No. PCT/EP2004/002833 | | International filing date (day/month/year) 17.03.2004 | Priority date (day/month/year) 27.03.2003 | |
| International Patent Classification (IPC) or national classification and IPC B05B17/06 | | | | |
| Applicant UNILEVER PLC et al | | | | |
| <p>1. This report is the International preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.</p> <p>2. This REPORT consists of a total of 6 sheets, including this cover sheet.</p> <p>3. This report is also accompanied by ANNEXES, comprising:</p> <p>a. <input type="checkbox"/> sent to the applicant and to the International Bureau) a total of sheets, as follows:</p> <p><input type="checkbox"/> sheets of the description, claims and/or drawings which have been amended and are the basis of this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).</p> <p><input type="checkbox"/> sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.</p> <p>b. <input type="checkbox"/> (sent to the International Bureau only) a total of (indicate type and number of electronic carrier(s)) , containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).</p> | | | | |
| <p>4. This report contains indications relating to the following items:</p> <p><input checked="" type="checkbox"/> Box No. I Basis of the opinion</p> <p><input type="checkbox"/> Box No. II Priority</p> <p><input type="checkbox"/> Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</p> <p><input type="checkbox"/> Box No. IV Lack of unity of invention</p> <p><input checked="" type="checkbox"/> Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</p> <p><input type="checkbox"/> Box No. VI Certain documents cited</p> <p><input type="checkbox"/> Box No. VII Certain defects in the international application</p> <p><input type="checkbox"/> Box No. VIII Certain observations on the international application</p> | | | | |
| Date of submission of the demand 30.08.2004 | | Date of completion of this report 24.06.2005 | | |
| Name and mailing address of the International preliminary examining authority:  European Patent Office - P.B. 5818 Patentlaan 2 NL-2280 HV Rijswijk - Pays Bas Tel. +31 70 340 - 2040 Tx: 31 651 epo nl Fax: +31 70 340 - 3016 | | Authorized Officer Barré, V Telephone No. +31 70 340-2987 | | |



**INTERNATIONAL PRELIMINARY REPORT
ON PATENTABILITY**

International application No.
PCT/EP2004/002833

Box No. I Basis of the report

1. With regard to the **language**, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.
- ☐ This report is based on translations from the original language into the following language , which is the language of a translation furnished for the purposes of:
- ☐ international search (under Rules 12.3 and 23.1(b))
 - ☐ publication of the international application (under Rule 12.4)
 - ☐ international preliminary examination (under Rules 55.2 and/or 55.3)
2. With regard to the **elements*** of the international application, this report is based on *(replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report)*:

Description, Pages

1-17 as originally filed

Claims, Numbers

1-23 as originally filed

Drawings, Sheets

1/7-7/7 as originally filed

☐ a sequence listing and/or any related table(s) - see Supplemental Box Relating to Sequence Listing

3. ☐ The amendments have resulted in the cancellation of:
- ☐ the description, pages
 - ☐ the claims, Nos.
 - ☐ the drawings, sheets/figs
 - ☐ the sequence listing (*specify*):
 - ☐ any table(s) related to sequence listing (*specify*):
4. ☐ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).
- ☐ the description, pages
 - ☐ the claims, Nos.
 - ☐ the drawings, sheets/figs
 - ☐ the sequence listing (*specify*):
 - ☐ any table(s) related to sequence listing (*specify*):

* If item 4 applies, some or all of these sheets may be marked "superseded."

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Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

| | | |
|-------------------------------|-------------|-----------------------------|
| Novelty (N) | Yes: Claims | 3, 6, 13-15, 18, 19, 21, 23 |
| | No: Claims | 1,2,4,5,7-12,16,17,20,22 |
| Inventive step (IS) | Yes: Claims | |
| | No: Claims | 1-23 |
| Industrial applicability (IA) | Yes: Claims | 1-23 |
| | No: Claims | |

2. Citations and explanations (Rule 70.7):

see separate sheet

Re Item V.

1 The following document is referred to in this communication:

- D1: WO 97/17933 A (AEROPAG USA INC ; BABAEV ELIAZ P (US)) 22 May 1997
(1997-05-22)
D2: DE 28 27 322 A (AUDI NSU AUTO UNION AG) 10 January 1980 (1980-01-10)
D3: WO 02/24150 A (ADVANCED MEDICAL APPLIC INC ; BABAEV ELIAZ (US))
28 March 2002 (2002-03-28)

2 INDEPENDENT CLAIM 1

2.1 The present application does not meet the criteria of Article 33(1) PCT, because the subject-matter of claim 1 is not new in the sense of Article 33(2) PCT.
Document D1 discloses (the references in parenthesis applying to this document):

A method of generating a spray comprising subjecting a liquid on a continuous atomisation surface (122) to acoustic vibration, characterised in that the continuous atomisation surface (122) comprises multiple hollows (124) from which the liquid is atomised.

3 INDEPENDENT CLAIM 16

3.1 The present application does not meet the criteria of Article 33(1) PCT, because the subject-matter of claim 16 is not new in the sense of Article 33(2) PCT.
Document D1 discloses (the references in parenthesis applying to this document):

A spray device comprising a continuous atomisation surface (122), a reservoir (38) for holding the liquid to be atomised, means for transferring the liquid (62a, 62b, 62c, 76) from the reservoir (38) to the atomisation surface (122), and means (70, 71, 73) for subjecting the continuous atomisation surface (122) to acoustic vibration, characterised

in that the continuous atomisation surface (122) comprises multiple hollows (124) from which the liquid is atomised.

4 INDEPENDENT CLAIM 22

- 4.1 The present application does not meet the criteria of Article 33(1) PCT, because the subject-matter of claim 22 is not new for substantially the same reasons as for claim 16.

5 DEPENDENT CLAIMS 2,4,5,7-12,16,17,20,22

The subject matter of claims 2,4,5,7-12,16,17,20,22 is also known from the same document D1 and is therefore considered to lack novelty.

6 DEPENDENT CLAIMS 3,6,18,19.

The features of claims 3,6,18,19, relate to the shape or size of the hollows. These features are merely one of several straightforward possibilities from which the skilled person would select, in accordance with circumstances, without the exercise of inventive skill, in order to achieve the desired spray shape.

Thus the subject matter of claims 3,6,18,19 lacks an inventive step.

7 DEPENDENT CLAIMS 13-15,23

The features of claims 13-15, 23 are merely one of several straightforward possibilities from which the skilled person would select, in accordance with circumstances, without the exercise of inventive skill, in order to generate a spray of the selected product.

Thus the subject matter of claims 13-15, 23 also lacks an inventive step.

8 DEPENDENT CLAIM 20

Feature means for generating an air flow is described in document D2 as providing the same advantages as in the present application. The skilled person would therefore regard it as a normal design option to include this feature in the spray device described

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(SEPARATE SHEET)**

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in document D1 in order to solve the problem of carrying the nebulized liquid.
Thus the subject matter of claim 20 also lacks an inventive step.